

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) ~~Frequency~~ A frequency allocation scheme for optical channels transmitted via a ~~WDM~~ WDM transmission line with alternating left side and right side filtering for adjacent channels, comprising:

~~Having~~ channels with alternating channel spacing of A and B, where $A < B$,

~~Having~~ two sets of channels orthogonally polarized, and

means at a receiver for alternately left-side and right-side filtering sidebands of the adjacent channels.

2. (Currently Amended) ~~Frequency~~ A frequency allocation scheme ~~according to claim 1 for~~ optical channels transmitted via a WDM transmission line with alternating left side and right side filtering for adjacent channels, comprising:

channels with alternating channel spacing of A and B, where $A < B$,

two sets of channels orthogonally polarized,

where the two ~~sets~~ sets of ~~orthogonal~~ orthogonally polarized channels are shifted versus each ~~others~~ other by a value $A/2 + \delta_{\text{Filter1}} - A/2 + \delta_{\text{Filter2}} \pm 20\%$.

3. (Currently Amended) ~~Transmission~~ A transmission system with a transmitter function, a transmitting fiber and a receiver function, wherein:

• ~~The~~ the transmitter function ~~comprising~~ comprises polarized light sources (1), with modulators (2) and a wavelength multiplexer (3); and

• ~~The~~ the receiver function ~~comprising~~ comprises at least a polarization demultiplexer (11), a wavelength demultiplexer (5), filters and electrical receivers,

said filters performing alternating left-side and right-side filtering for adjacent received channels which are transmitted via a WDM transmission line.